FIBER®
DRIVER

NC316BU-IDC

Single-Slot Chassis With Internal - 48VDC Power Supply

User's Guide

Registration Card

Your name: Mr./Ms_____
Organization: _____Dept. _____
Your title at organization:_____
Telephone: _____ Fax:_____
Organization's full address:_____
_____
Country:_____
Date of purchase (Month/Day/Year):_____

Serial number:

Product was purchased from:
Reseller's name:_____
Telephone:___ _____ Fax:_____
Reseller's
full address_____
_____

Answers to the following questions help us to support your product:

1. Where and how will the product primarily be used?

☐Home ☐Office ☐Travel ☐Company Business ☐Home Business ☐Personal Use

2. How many employees work at installation site?

☐ 1 employee ☐ 2-9 ☐ 10-49 ☐ 50-99 ☐ 100-499 ☐ 500-999 ☐ 1000+

3. What network medium/media does your organization use ?

☐ Fiber-optics ☐ Thick coax Ethernet ☐ Thin coax Ethernet
☐ 10BASE-T UTP/STP ☐ 100BASE-TX ☐ 100BASE-T4 ☐ 100VGAnyLAN
☐ Others_____

4. What category best describes your company?

☐ Aerospace ☐ Engineering ☐ Education ☐ Finance ☐ Hospital
☐ Legal ☐ Insurance/Real Estate ☐ Manufacturing
☐ Retail/Chain store/Wholesale ☐ Government
☐ Transportation/Utilities/Communication ☐ VAR ☐ System house/company
☐ Other_____

5. Would you recommend your Fiber Driver product to a friend?

☐ Yes ☐ No ☐ Don't know yet

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1 INTRODUCTION

About this Manual

This manual is a guide to the installation and operation of the NC316BU-1DC Fiber driver single slot chassis.

Product description describes the product, its functions, features, protocol supported, minimum requirements, and typical applications.

Installation guides you through the setup of the NC316BU-1DC to your network.

Customer support provides information on return policy and customer support information.

Glossary provides definition to terms used in this manual.

Before unpacking please refer to section 2 (Hardware Installation)

Product Description

This is a 6.25" x 1.5" x 8"chassis designed to power any single module Fiber Driver (EM316 Family). It comes with a –48VDC power supply. The chassis can be used with a wall-mounting bracket, if needed.

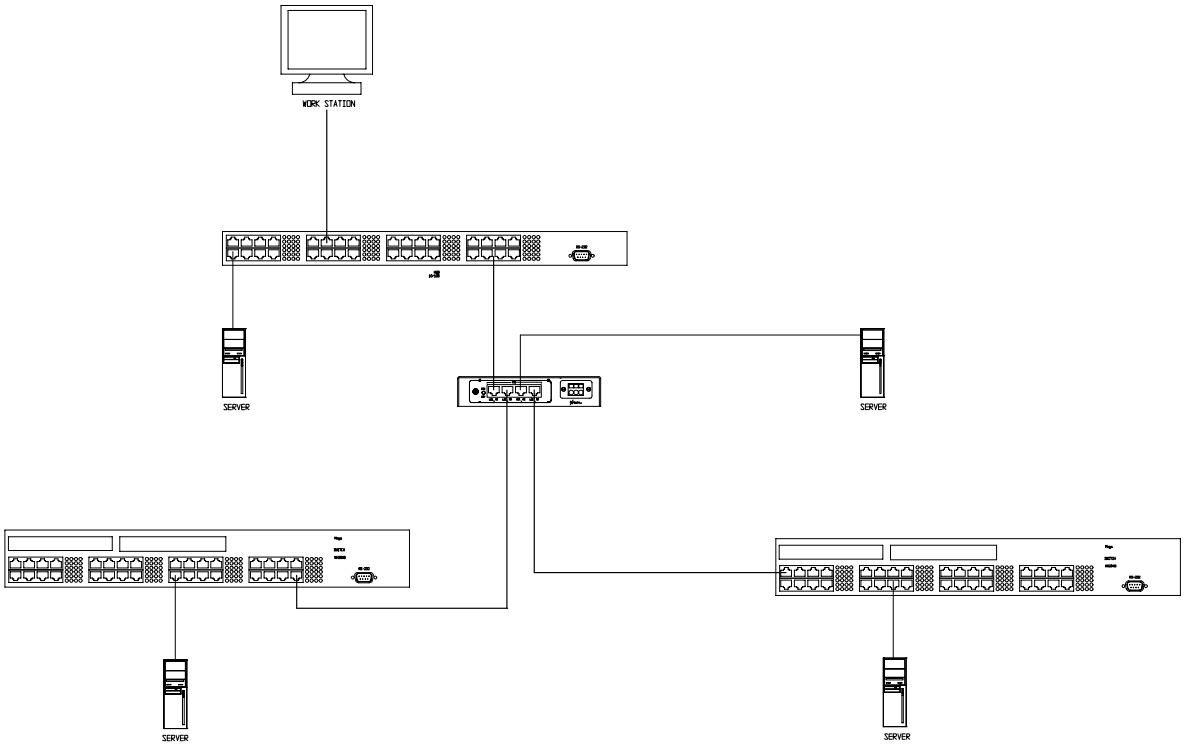
Features

- Chassis can be used to power all EM316 single module
- Uses a -48VDC power supply
- Can be Desktop or Wall Mount

*For dB budget see: ftp://ftp.fiberdriver.com/pub/doc/spec/fiberdriver

Typical Applications

NC316BU-1DC (Shown with an installed Fiber Driver module)



2 HARDWARE INSTALLATION

PREPARATION

STEP 1 Follow all Safety Regulations

1 Eliminate static electricity in the workplace by grounding operators, equipment, and devices (components and computer boards). Grounding prevents static charge buildup and electrostatic potential differences. Transporting products in special electrostatic shielding packages avert electrical field damage.

2 An effective workplace should be outfitted with the following items:

a) ESD protective clothing/smocks: Street clothing must not come in contact with components or computer boards since the various materials in clothing can generate high static charges. ESD protective smocks, manufactured with conductive fibers, are recommended.

b) Electrostatic shielding containers or totes: These containers (bags, boxes, etc.) are made of specially formulated materials, which protect sensitive devices during transport and storage.

c) Antistatic or dissipative carriers: These provide ESD protection during component movement in the manufacturing process. It must be noted that antistatic materials alone will not provide complete protection. They must be used in conjunction with other methods such as totes or electrostatic shielding bags.

d) Dissipative tablemat: The mat should provide a controlled discharge of static voltages and must be grounded. The surface resistance is designed such that sliding a computer board or component across its surface will not generate more than 100 V.

e) Personal grounding: A wrist strap or ESD cuff is kept in constant contact with bare skin and has a cable for attaching it to the ESD ground. The purpose of the wrist strap is to drain off the operator's static charge. The wrist strap cord has a current-limiting resistor for personnel safety. Wrist straps must be tested frequently to ensure that they are undamaged and operating correctly. When a wrist strap is impractical, special heel straps or shoes can be used. These items are effective only when used in conjunction with a dissipative floor.

f) ESD protective floor or mat: The mat must be grounded through a current-limiting resistor. The floor or mat dissipates the static charge of personnel approaching the workbench. Special conductive tile or floor treatment can be used when mats are not practical or cause a safety hazard. Chairs should be conductive or grounded with a drag chain to the flooring.

STEP 2 Determine the best location for the chassis.

Affix the chassis to a 19" or 23" rack using the enclosed rack mount ears, or place the unit on a secure, flat surface. Ensure that the unit is within reach of the necessary connections (i.e. power outlet, Ethernet connections, and, if the chassis will be monitored via serial port, and either a PC, UNIX workstation, or modem).

STEP 3 Make sure there is enough space to pull and connect both the electrical and optical cables without stressing them beyond the manufacturer's limitation (bend radius minimum).

STEP 4 The ambient temperature within the rack may be greater than the room ambient temperature. Installation should be such that the amount of airflow required for safe operation is not compromised.

STEP 5 The maximum temperature for the equipment in this environment is 50^{o}C. Consideration should be given to the maximum rated ambient temperature.

STEP 6 Installation should be such that a hazardous stability condition is not achieved due to uneven loading.

STEP 7 Check nameplate ratings to assure there is no overloading of supply circuits that could have an effect on over-current protection and supply wiring.

STEP 8 When installing 48VDC rated equipment, it must be installed only per the following conditions:

a) Connect the equipment to a 48VDC supply source that is electrically isolated from the alternating current source. The 48VDC source is said to be reliably connected to ground or connected to a 48VDC SELV source.
b) To be installed only in restricted access areas (dedicated equipment rooms, equipment closets or the like) in accordance wit articles 110-16, 110-17, and 110-18 of the National Electrical Code, ANSI/NFPA 70.
c) Input wiring to terminal block must be routed and secured in such a manner that is protected from damage and stress. Do not route wiring past sharp edges or moving parts.

d) A readily accessible disconnect device, with a 3mm minimum contact gap, shall be incorporated in the fixed wiring.

STEP 9 Plug in the chassis

Connect the power cord (s) to the chassis and an outlet. Turn the power switch (es) to ON position. The wide-ranging power supply adjusts to any outlet.

STEP 10 Unpacking the unit

Verify that no visible damage has been caused to the outer box. Remove all material from the packing box and confirm receipt of the following:

Fiber Driver module unit
User's manual (this manual in printed format or on a CD)

In the unlikely event that anything is missing, contact your authorized dealer or representative. If it becomes necessary to return the unit, repackage the unit in its original box.

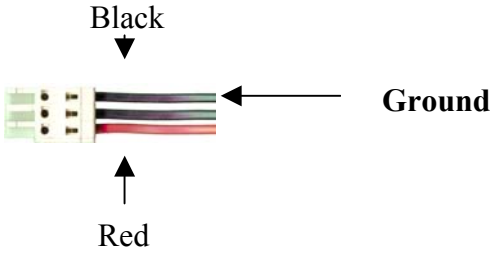
UNIT INSTALLATION

STEP 1 Remove the Wago connector (shown below) which is plugged into the front of the unit.

STEP 2 Prepare the 18 AWG wires (minimum gage wire required) you're your 48VDC power source by stripping back approximately ¼" of insulation and exposing the bare wire.

STEP 3 You will need a small screwdriver to wedge into the connector above the wire in order to open the pathway for the wire. See pictures below.

STEP 4 Notice that the Wago connector is keyed. In the picture below install the red wire (+), chassis ground (center wire) and black wire (-), as shown. Insert a screwdriver as shown above, in the top rectangular holes and press upward then insert the wire into the round hole. Remove the screwdriver and tug on the wire to maker sure the connection is secured.



STEP 5 Now insert the plug into the front of the NC316BU-1DC in the receptacle provided. See picture below.

STEP 6 Turn on your 48VDC power source when you are ready to use the NC316BU-1DC.

3 TROUBLESHOOTING

The Fiber Driver series are highly reliable units. If there are any operating problems, the fault probably lies in some other aspect of the configuration. However, if after following the troubleshooting steps below (in order), you find that the unit is still not functioning correctly, please contact your local MRV representative.

Ensure that DC power is coming from the outlet. Please follow all safety precautions when doing this step.

Install a functioning EM316 Fiber driver module and verify if the LED indicators of the module illuminates.

If there are no lights coming from the LED indicators of the module, check for any loose connections, and verify all cable connections.

If replacing the cable or reconnecting any loose connections, did not solve the problem, the unit power supply may be faulty, and the unit must be returned or replaced.

Remove the module from the unit.

Turn off your 48VDC power source.

4 TECHNICAL SPECIFICATIONS

Electrical
Input: 36-75VDC, Fuse= $0.5A_{DC}$
Output: 5VDC, 2A Max

Operating Temperature Range
0°C - +50 °C (32°F – 122°F)

Storage temp
-10°C - +60°C (28°F – 140°F)

Relative Humidity
85% maximum non-condensing

Emissions & Safety Compliance
FCC Part 15, Sub. J, Class A
ETL (UL-1950), TUV/VDE, cUL

Physical Dimensions
1.5” high x 6.25” wide x 8” deep (3.81cm x 15.88cm x 20.32cm)

Weight
3.5 lb (1.575 kg)

Color
Black

5 CUSTOMER SUPPORT

Contact Information

If you have any questions, please do not hesitate to contact us at:

Americas Support		International Support
MRV (East Coast USA) 295 Foster Street Littleton, MA 01460-2016 Tech Support: (800) 338-5316 Tech Support: (800) 952-4700 E-mail: support@fiberdriver.com Fax: (978) 952-4880 URL: http://www.fiberdriver.com	MRV (West Coast USA) 20415 Nordhoff St. Chatsworth, CA 91311 Tel. (800) 338-5316 Tel. (818) 773-0900	Europe – Asia – Africa Industrial Zone P.O Box 614 Yokneam, 20682 Israel Tel: 972-4-993-6200 Fax: 972-4-989-2743 Email: sales@mrv.com International Support: support@mrv.com

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South Africa
Tel: 011-27-11-664-6963

Israel
Tel: 972-4-9936221

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Email: sales@mrv.com

Manual Information:

The most recent version of this manual may be found on our ftp site: ftp://ftp.fiberdriver.com/pub/doc/manuals/

6 GLOSSARY

Complete definition of networking terms (jargon) used in this manual, may be found on our ftp site:

ftp://ftp.fiberdriver.com/pub/doc/Glossary.pdf

7 ORDERING INFORMATION

Please visit us at http://www.fiberdriver.com for the latest updates on our products.

Fiber Driver Division of MRV

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Phone: (818) 772-6235 or (800) 966-4444
Fax: (818) 772-0576
Fiber Driver Inquiries: info@fiberdriver.com
Marketing: marketing@fiberdriver.com
Repair Services: rma@fiberdriver.com

*Note: For dB budget see: ftp://ftp.fiberdriver.com/pub/doc/spec/fiberdriver

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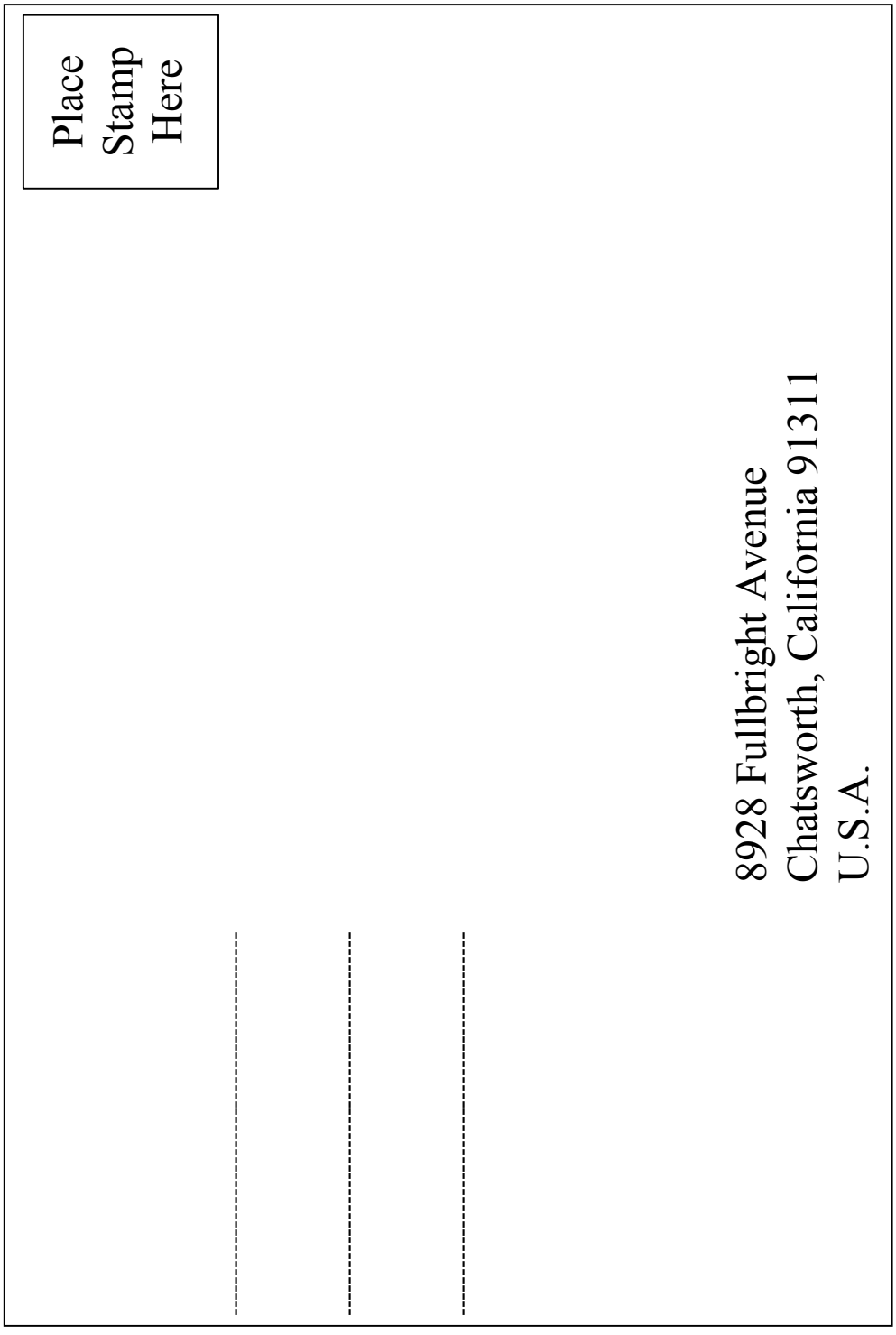
Place
Stamp
Here
8928 Fullbright Avenue
Chatsworth, California 91311
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